AMENDMENTS TO THE CLAIMS:

Claims 1 and 16 are amended herein. Claims 4 and 20 are cancelled. All pending claims and their present status are produced below.

1. (Currently Amended) A method for communicating transaction request information from a PCI environment over a network, the method comprising:

receiving a number of transaction requests from the PCI environment;

determining a destination node ID and a destination address associated with each transaction request;

maintaining an order of the transaction requests received;

maintaining an order of data associated with each of the transaction requests;

for each transaction request, assembling a packet including a request, a destination node ID and a destination address; and

transmitting the packet to the network;

wherein maintaining the order of the transaction requests and maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the transaction requests.

2. (Original) The method of claim 1 wherein the determining step includes translating the destination node ID and destination address from a PCI address space of the PCI environment.

3. (Original) The method of claim 1 wherein the determining step includes mapping a remote DMA space from a logical node ID included in a PCI address space of

the PCI environment, the DMA space corresponding to a number of remote memory devices.

4. (Cancelled).

5. (Original) The method of claim 1, wherein one of the transaction requests received from the PCI environment is an original read request, the method further comprising:

responsive to not having received the read data associated with the original read request, issuing a retry reply to the device in response to receiving a retry of the original read request from the device thereby requiring the device to continue to retry the original read request; and

responsive to receiving the read data associated with the original read request, and responsive to receiving a retry of the original read request from the device, issuing the read data to the device.

6. (Original) The method of claim 5 further comprising:

generating a force read retry signal that triggers the issuing of the retry reply to the device.

7. (Original) The method of claim 1 further comprising:

determining a number of transaction requests that have a same destination node.

8. (Original) The method of claim 1 wherein the determining step includes deriving the destination node ID from a node ID table, each entry in the table indexed

according to a logical node ID included in a PCI address space of the PCI environment.

9. (Previously Presented) A method for communicating request packet information from a network to a PCI environment, the method comprising:

receiving a number of a request packets from the network;

for each request packet, identifying a request, a destination node ID and a destination address associated with the packet;

maintaining an order of the requests associated with each of the request packets received;

maintaining an order of data associated with each of the request packets received; and

for each request packet, processing the associated request,

wherein maintaining the order of the requests and maintaining the order of data are accomplished using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the requests.

10. (Original) The method of claim 9 wherein the steps of maintaining the order of the requests and maintaining the order of data are accomplished using FIFO queue structures.

11. (Cancelled).

12. (Original) The method of claim 9 further comprising:

responsive to a read request packet and a write request packet both having a same destination node ID, processing the write request packet before processing the read request packet.

13. (Original) The method of claim 9 further comprising:

responsive to receiving a read request packet, receiving read data from the PCI environment;

assembling that read data into a read reply packet; and

transmitting the read reply packet over the network.

14. (Original) The method of claim 9 wherein processing step includes executing a PCI command corresponding to the request.

15. (Original) The method of claim 14 wherein the corresponding PCI command is one of a read command, a write command or a status inquiry command.

16. (Currently Amended) A system for communicating transaction request information from a PCI environment over a network, the system comprising:

a PCI interface for receiving transaction requests from the PCI environment and for determining a destination node ID and destination address a PCI address associated with each transaction request received;

a transfer unit operatively coupled to the PCI interface for maintaining an order of the transaction requests received, and for maintaining an order of data associated with each of the transaction requests; and

a network interface coupled to the transfer unit for assembling a request packet for each transaction request, each request packet including a request, a destination node ID and a destination address;

wherein the transfer unit maintains the order of the transaction requests and maintains the order of data using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the transaction requests.

17. (Original) The system of claim 16 wherein the PCI interface includes a translator unit for determining the destination node ID and destination address from a PCI address space of the PCI environment.

18. (Original) The system of claim 16 wherein the PCI interface includes a mapping means implemented in software for mapping a remote DMA space from a logical node ID included in a PCI address space of the PCI environment, the remote DMA space corresponding to a number of remote memory devices.

19. (Original) The system of claim 16 wherein the PCI interface includes a table of destination node IDs, each destination node ID in the table being indexed according to a logical node ID included in a PCI address space of the PCI environment.

20. (Cancelled).

21. (Original) The system of claim 16 wherein one of the transaction requests received by the PCI interface is an original read request from a device included in

the PCI environment, and wherein in response to read data associated with the original read request not having been received by the system, the system issues a retry reply to the device in response to receiving a retry of the original read request from the device thereby requiring the device to continue to retry the original read request.

22. (Original) The system of claim 21 wherein in response to the system receiving the read data associated with the original read request, and responsive to the system receiving a retry of the original read request from the device, the read data is issued to the device.

23. (Original) The system of claim 21 wherein in response to the read data associated with the original read request not having been received by the transfer unit, the transfer unit signals the interface with a force read retry signal that indicates to the interface that the transfer unit has not received the read data associated with the original read request, the force read retry signal causing the interface to issue a retry reply to the device in response to receiving a retry of the original read request from the device thereby requiring the device to continue to retry the original read request.

24. (Original) The system of claim 23 wherein in response to the read data associated with the original read request having been received by the transfer unit, the transfer unit signals the interface by suppressing the force read retry signal thereby indicating to the interface that the transfer unit has received the read data associated with the original read request.

25. (Original) The system of claim 24 wherein in response to the interface receiving a retry of the original read request, the transfer unit transfers the read data associated with the original read request to the device via the interface.

26. (Previously Presented) A system for communicating request packet information from a network to a PCI environment, the system comprising:

a network interface for receiving a number of a request packets from the network, and for each request packet, identifying a request, data, a destination node ID and a destination address associated with the packet;

a receive unit for maintaining an order of the requests associated with each of the request packets received, and for maintaining an order of data associated with each of the request packets received; and

a PCI interface for processing the request associated with each request packet,

wherein the receive unit maintains the order of the requests and maintains the order of data using a first FIFO queue structure for read data, a second FIFO queue structure for write data and a third FIFO queue structure for the requests.

27. (Cancelled).

28. (Cancelled).

29. (Original) The system of claim 26 wherein the PCI interface includes a buffer for receiving read data from the PCI environment responsive to a read request, and wherein the network interface assembles read reply packets that include the read data, and transmits the read reply packets over the network.

30. (Original) The system of claim 26 wherein the processing performed by the PCI interface includes executing a PCI command corresponding to the request.

31. (Original) The system of claim 30 wherein the corresponding PCI command is one of a read command, a write command or a status inquiry command.